REMARKS

Applicant respectfully traverses the following rejection made in the Final Office Action: rejection of claims 19-36 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent App. Pub. No. 2005/0055391 ("*Carlson*") in view of U.S. Patent No. 5,383,143 ("*Crouch*").

Rejection of Claims 19-36 under 35 U.S.C. § 103(a):

Applicant requests reconsideration and withdrawal of the rejection of claims 19-36 under 35 U.S.C. § 103(a) as being unpatentable over *Carlson* in view of *Crouch*.

The Final Office Action has not properly resolved the *Graham* factual inquiries, the proper resolution of which is the requirement for establishing a framework for an objective obviousness analysis. *See* M.P.E.P. § 2141(II), citing to *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), as reiterated by the U.S. Supreme Court in *KSR International Co. v. Teleflex Inc.*, 550 U.S. 398, 82 U.S.P.Q.2d 1385 (2007).

In particular, the Final Office Action has not properly determined the scope and content of the prior art, at least because the Final Office Action incorrectly interpreted the content of *Carlson* in view of *Crouch*. In addition, the Final Office Action has not properly ascertained the differences between the claimed invention and the prior art, at least because the Final Office Action has not properly interpreted the prior art and considered *both* the invention *and* the prior art *as a whole*. *See* M.P.E.P. § 2141(II)(B).

Independent claim 19 recites, in part, "a true random number generator" and "a pseudo-random number generator arranged to generate a pseudo-random sequence by using the true random numbers produced by said true random number generator as random seed" (emphases added). The Final Office Action appears to consider the

"entropy generator" of *Carlson* as supposedly corresponding to the claimed "true random number generator" and the "linear feedback shift register (LFSR)[1]" of *Carlson* to correspond to the claimed "pseudo-random number generator." *See* Final Office Action, p. 3. This is incorrect.

Specifically, *Carlson* teaches an "RNG 100 compris[ing] an entropy generator 101 and a mixing function 152." *Carlson*, par. [0018]; *see also* Fig. 1. It appears that the "LFSR 130" of *Carlson* is part of the "entropy generator 101." *See Carlson*, Fig. 1. Even if one argues that the "entropy generator" of *Carlson* corresponds to the claimed "true random number generator" as alleged by the Final Office Action, to which Applicant does not concede, the "LFSR" of *Carlson* nevertheless cannot constitute the claimed "pseudo-random number generator," at least because it is part of the "entropy generator" and does not generate a pseudo-random sequence by using the output produced by the "entropy generator."

Moreover, the Final Office Action alleges that "applicant's random seed is actually a random number." Final Office Action, p. 21. Even if this allegation is correct, to which Applicant does not concede, the random seed recited in claim 19 is generated by the true random number generator, and is not a "product [] of applicant's mixing function" as alleged by the Final Office Action. *Id.* In addition, Applicant respectfully notes that claim 19 recites a "mixing logic" rather than a "mixing function." Further, Applicant respectfully traverses the Final Office Action's mischaracterization of the claimed "mixing logic" for at least the following reasons.

[1] The Final Office Action reads "a Left Shift Register." Final Office Action, p. 3. However, Applicant respectfully submits that there is no such term used in *Carlson*. Applicant reasonably believes that this is a typographical error of "a Linear Feedback Shift Register."

Independent claim 19 further recites, in part, "said mixing logic comprising a generator of an alteration signal intended to change the behavior of said pseudo random number generator" and "said generator of the alteration signal being connected so as to receive said seed and generate said alteration signal by processing said seed by means of the sequence generated by said pseudo-random number generator" (emphases added). The Final Office Action alleges that *Carlson* teaches these elements. *See* Final Office Action, p. 4. This is also incorrect.

The Final Office Action appears to consider the "mixing function 152" of *Carlson* as supposedly corresponding to the claimed "mixing logic." *See* Final Office Action, p. 3. However, *Carlson* at best teaches that the "mixing function 152" receives "entropy bits generated by entropy generator 101 [to generate a "robust random number"]." *Carlson*, par. [0033], *see also* par. [0028] and Fig. 1. There is no teaching or suggestion in *Carlson* to process a seed "by means of the sequence generated by said pseudo-random number generator" to "generate [an] alteration signal" so as "to change the behavior of said pseudo random number generator," as recited in claim 19 (emphases added).

Crouch fails to cure the deficiencies of *Carlson*. The Final Office Action admits that "Carlson does not expressly teach the claim [] element of a pseudo-random generator," but asserts that *Crouch* teaches "the use of a pseudo-random number generator [to] provide the capability to create a random number using a pseudo-random generator." Final Office Action, p. 4. Even if this assertion is correct, to which Applicant does not concede, *Crouch* nevertheless fails to teach or suggest the claim features quoted and discussed above, and thus does not cure the deficiencies of *Carlson*. For

brevity, Applicant's arguments regarding *Crouch* as presented in the Amendment filed on June 3, 2009 are maintained and incorporated by reference.

Moreover, in response to the Amendment filed June 3, 2009, the Final Office Action states that "[t]he Examiner does not fully understand why applicant's arguments are pertaining to Crouch's capability to produce a "true random number" using a random number generator." Final Office Action, pp. 21-22. However, Applicant respectfully notes that the arguments in the above-noted Amendment are not pertaining to *Crouch*'s *capability* to produce a "true random number." Rather, the arguments are that "[t]he first seed [used by the pseudo random number generator of *Crouch*] is not a "true random number" . . . but [] is [] stored in memory or generated by a deterministic process." *See* Amendment of June 3, 2009, p. 9.

Finally, Applicant acknowledges the Final Office Action's statement that "[w]ith regards to applicant's "non-consideration of claim[ed] subject matter" argument presented in applicant's remarks in pg. 10, on 6/3/2009, the Examiner contends the subject matter omitted was done by accident." Final Office Action, p. 22. In response, Applicant's arguments at pp. 8-10 of the Amendment filed on June 3, 2009 are incorporated by reference. Applicant notes that independent claim 19 is not a product-by-process claim, despite the allegation in the Final Office Action at p. 22, and all features recited in claim 19 should be given patentable weight during examination. Therefore, the Examiner's response to Applicant's previous arguments is insufficient. Without necessarily agreeing with the Examiner's explanation, Applicant requests that the next action from the Office, if not a Notice of Allowance, be made nonfinal because this omission is substantive in nature and affects independent claim 19.

Therefore, independent claim 19 is not obvious over *Carlson* and *Crouch*, whether taken alone or in combination, and thus should be allowable. Independent claim 30, although different in scope from independent claim 19, recites elements similar to those of claim 19. Therefore, at least for reasons similar to those discussed above, claim 30 is also not obvious over *Carlson* and *Crouch*, whether taken alone or in combination, and thus should be allowable. Dependent claims 20-29 and 31-36 are also allowable at least by virtue of their respective dependence from base claim 19 or 30, and because they recite additional features not taught or suggested by the cited references. Therefore, Applicant respectfully requests withdrawal of the rejection.

Conclusion:

In view of the foregoing, Applicant respectfully requests reconsideration and reexamination of this application and the timely allowance of the pending claims.

If there are any remaining issues or misunderstandings, Applicant requests the Examiner telephone the undersigned representative to discuss them.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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Dated: December 28, 2009

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